



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,447	03/23/2004	Alan Jack	003301-047	1805
21839	7590	03/03/2006	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			NGUYEN, HANH N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

HA

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,447	<b>Applicant(s)</b> JACK, ALAN	
	<b>Examiner</b> Nguyen N. Hanh	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16 and 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-3, 5-16 and 18-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-16 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberry in view of Jack et al (US 6,472,792).

Regarding claim 1, Rosenberry discloses a stator core (13 in Fig. 6) for an electrical machine, said stator core comprising: a core back (4" in Fig. 5), and a plurality of teeth (6', 6A', 6B') arranged circumferentially at the core back and extending radially there from, wherein the core back is at least one sheet of electrically insulated soft magnetic material (Col. 2, lines 35-40) arranged as a spiral. Rosenberry fails to show said core back includes openings, each associated with a tooth, a portion of each tooth is inserted into an associated opening.

However, Jack et al. disclose a stator said core back (Fig. 1 and 9) includes openings (6 in Fig. 1), each associated with a tooth (1), a portion of each tooth is inserted into an associated opening for the purpose of improving manufacturing process (Col. 1, lines 63-64).

Since Rosenberry and Jack et al. are in the same field of endeavor, the purpose disclosed by Jack et al. would have been recognized in the pertinent art of Rosenberry.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Rosenberry by forming separated pole tooth and making openings on the core back and as a result, a portion of each tooth is inserted into an associated opening as taught by Jack et al. for the purpose of improving manufacturing process.

Regarding claims 9 and 16, it is noted that all limitations of the claimed invention have been fulfilled by Rosenberry as in claim 1

Regarding claims 2 and 10, Rosenberry also discloses a stator core wherein the core back is annular.

Regarding claims 3 and 11, Rosenberry also discloses a stator core wherein said sheet of electrically insulated soft magnetic material is elongated and has a length, a width, and a thickness, and wherein the length of said sheet of electrically insulated soft magnetic material extends essentially circumferentially, the width of said soft magnetic material extends essentially axially, and the thickness of said soft magnetic material extends essentially radially (Fig. 5).

Regarding claim 6, Rosenberry also discloses a stator core wherein said sheet is fixed in the spiral shape by means of gluing, welding or soldering (method of forming the device is not germane to the issue of patentability itself. Therefore, this limitation has not been given patentable weight).

Regarding claim 12, Jack et al. also disclose a stator core said openings are arranged not to cut the elongate edges of said core (Fig. 1).

Regarding claim 14, Rosenberry also shows the core back wherein said sheet is fixed in the spiral shape by means of gluing (Col. 6, lines 12-14 and Col. 8, lines 37-38).

Regarding claim 19, Rosenberry also shows the method for producing a stator core for an electrical machine further comprising the step of fixing the sheet in the shape of said spiral by means of gluing (Col. 6, lines 12-14 and Col. 8, lines 37-38), welding or soldering.

Regarding claims 20 and 21, it is noted that all limitations of the claimed invention have been fulfilled by Jack et al. as in claim 12.

Regarding claims 5 and 13, Rosenberry and Jack et al. show all limitations of the claimed invention except showing the stator core wherein the sheet is elongated and includes an opening at each end of said sheet. It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Rosenberry and Jack et al by locating an opening at each end of said sheet for the purpose of receiving the stator teeth, since it has been held that rearranging parts of an invention involves only routine skill in the Art. In re Japikse, 86 USPQ 70.

Regarding claims 8 and 15, Rosenberry and Jack et al. show all limitations of the claimed invention except showing the stator core wherein the sheet is arranged to form three turn. It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Rosenberry and Jack et al. by forming the stator core with three turns of the sheet since the Examiner takes Official Notice of the

Art Unit: 2834

equivalence of using three turns of thicker sheet or several more turns of thinner sheet to achieve certain thickness of the stator core would be within the level of ordinary skill in the Art.

Regarding claims 7 and 18, Jack et al. also disclose a stator structure for an electric machine wherein the teeth are arranged to be fastened in the openings by means of force fitting (Figs. 5, 6 and Col. 2, lines 44-47).

Regarding claims 22-24, it is noted that all limitations of the claimed invention have been fulfilled by Jack et al. as in claim 16.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

January 19, 2005

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000